

THE MONTHLY SKY GUIDE

IAN RIDPATH • WIL TIRION

FIFTH EDITION



CAMBRIDGE
UNIVERSITY PRESS

PUBLISHED BY THE PRESS SYNDICATE OF THE UNIVERSITY OF CAMBRIDGE
The Pitt Building, Trumpington Street, Cambridge, United Kingdom

CAMBRIDGE UNIVERSITY PRESS
The Edinburgh Building, Cambridge CB2 2RU, UK www.cup.cam.ac.uk
40 West 20th Street, New York, NY 10011-4211, USA www.cup.org
10 Stamford Road, Oakleigh, Melbourne 3166, Australia
Ruiz de Alarcón 13, 28014 Madrid, Spain

© Cambridge University Press 1987, 1990, 1993, 1996, 1999

This book is in copyright. Subject to statutory exception
and to the provisions of relevant collective licensing agreements,
no reproduction of any part may take place without
the written permission of Cambridge University Press.

First published 1987
Reprinted 1989
Second edition 1990
Reprinted 1991
Third edition 1993
Reprinted 1994
Fourth edition 1996
Reprinted 1997, 1998
Fifth edition 1999

Printed in the United Kingdom at the University Press, Cambridge

Typeface Syntax 9/11pt. *System* QuarkXPress® [ds]

A catalogue record for this book is available from the British Library

Library of Congress Cataloguing in Publication data

Ridpath, Ian
The monthly sky guide/Ian Ridpath and Wil Tirion. – 5th ed.
p. cm.
Includes index.

ISBN 0 521 66771 2 (pb)
1. Stars – Observers' manuals.
I. Tirion, Wil II. Title.
QB63.R525 1999
523.8'022'3–dc21 99-21390 CIP

ISBN 0 521 66771 2 paperback

CONTENTS

Introduction	7
Finding Your Way	14
January	17
February	21
March	25
April	29
May	33
June	37
July	41
August	45
September	49
October	53
November	57
December	61
Index	64

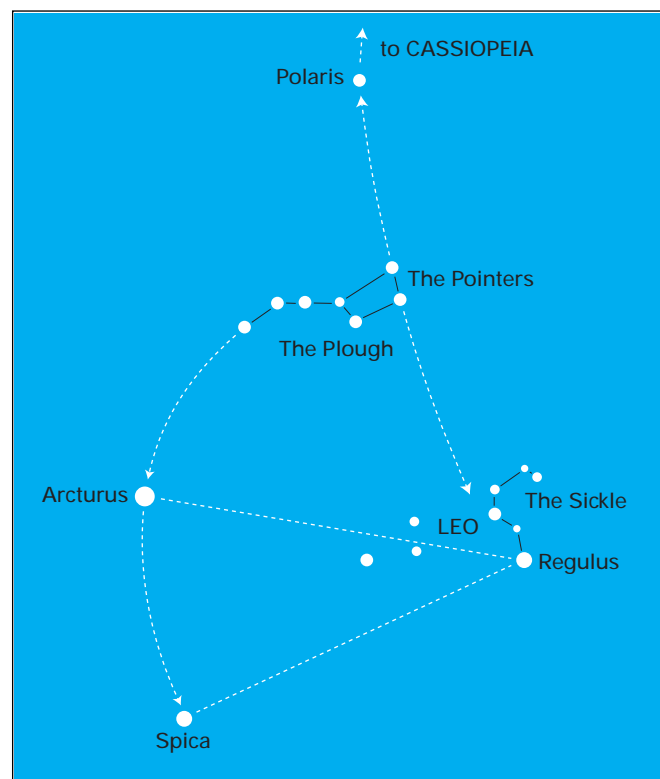
FINDING YOUR WAY

To find your way in unfamiliar territory, you need a map and signposts. This book provides the maps. The signposts are in the sky, once you know where to look. Start with an easily recognizable pattern, such as the Plough or Orion, and work your way outwards from it to locate other constellations and bright stars, a technique known as star-hopping. While star-hopping around the sky you will find that there are many natural 'pointers' that direct you from constellation to constellation. Also, bright stars often form distinctive patterns of lines, triangles and squares that you can remember. These pages demonstrate some of the best ways of locating prominent stars and constellations. As you navigate your way among the stars you will discover many more signposts of your own.

Signposts of spring

Start with the familiar saucepan-shape of the Plough or Big Dipper, which rides high in the sky on spring evenings. The seven stars of the saucepan are actually the most prominent members of the constellation Ursa Major, the Great Bear. From the diagram you can see that two stars of the saucepan's bowl – the ones that lie furthest from the handle – point towards the north pole star, Polaris. These two stars in the Plough are popularly known as The Pointers. If you extend the distance between them by about five times you will reach the pole star. Opposite Polaris from the Plough lie five stars that form a distinctive W-shape, which is the constellation of Cassiopeia.

Polaris is a star of moderate brightness lying in a somewhat blank region. It is not exactly at the north pole of the sky, but is situated about one degree (two Moon diameters) from it. During the night the stars circle around the north celestial pole (and hence around Polaris) as the Earth spins on its axis.



Go back to the Plough. If you extend the Pointers in the opposite direction, away from Polaris, you will come to the constellation of Leo, the Lion. This constellation is notable for the sickle-shape of stars, like a reversed question mark, that makes up the lion's head.

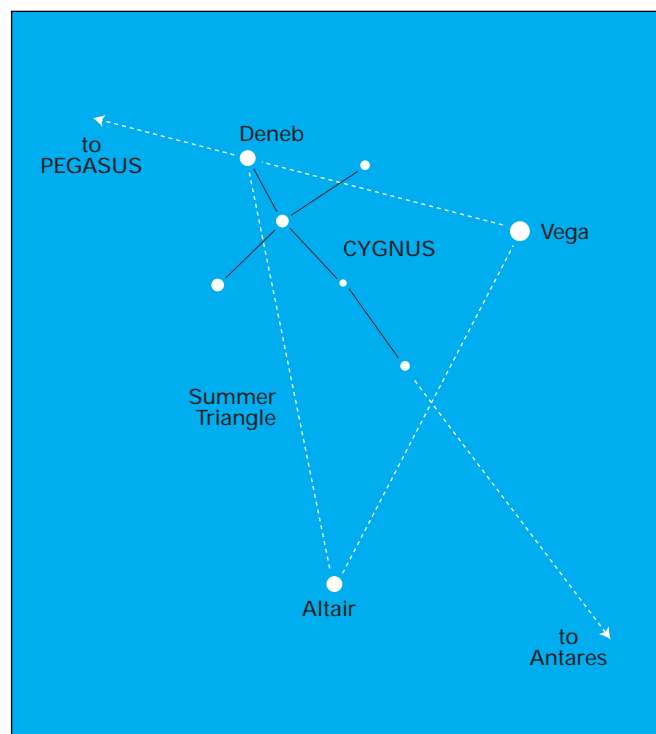
Now look at the handle of the Plough. Follow the curve made by the stars of the handle until you come to Arcturus, one of the brightest stars in the sky. Continue the curve and you reach the sparkling star Spica, in the constellation of Virgo. Note that Arcturus and Spica form a prominent triangle with Regulus, the brightest star in Leo.

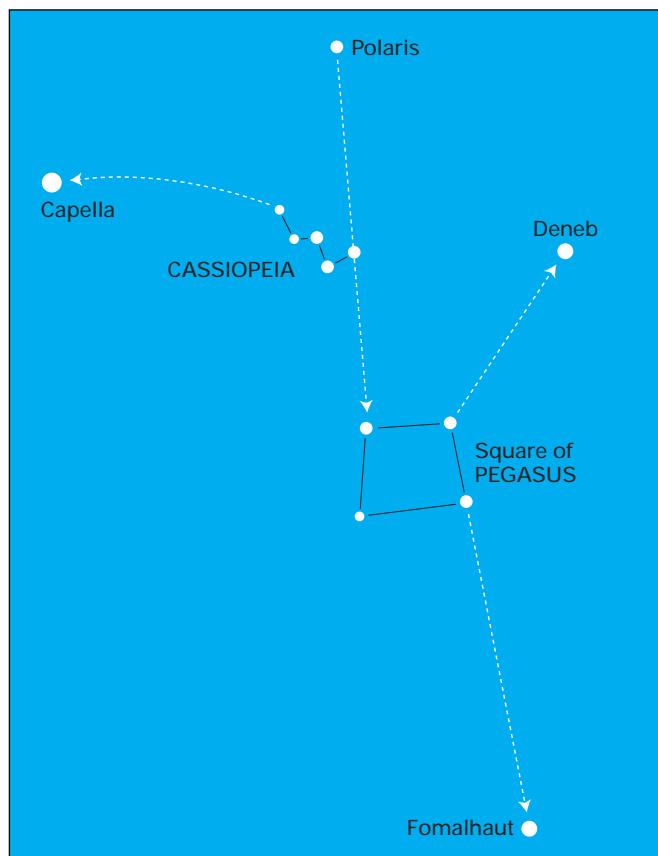
Signposts of summer

High in the sky on summer evenings lies an isosceles-shaped trio of bright stars known as the Summer Triangle. In order of decreasing brightness they are Vega, Altair and Deneb. Vega is the fifth-brightest star in the sky, and is the first star to appear as the sky darkens in July and August, shining overhead like a blue-white diamond.

Deneb is the brightest star in Cygnus, a constellation that represents a swan but which is better visualized as a cross, as shown on the diagram here. Deneb marks the head of the cross. The foot of the cross bisects a line between Vega and Altair, and points towards the bright star Antares, which appears low on the horizon from mid-northern latitudes. Antares lies due south as the sky darkens in July. It has a prominent red colour, and represents the heart of the Scorpion, Scorpius.

A line from Vega through Deneb directs you towards the Square of Pegasus, a quadrangle of four stars that is the centre-piece of the autumn sky. Apart from the Summer Triangle, the summer sky is remarkably bereft of prominent star patterns. Incidentally, despite its name the Summer Triangle remains visible well into the autumn.



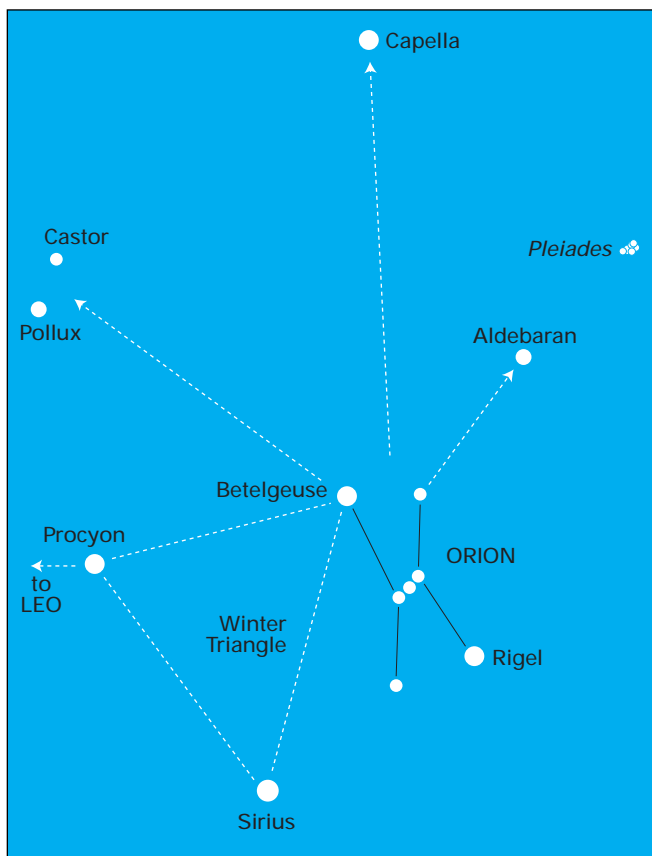


Signposts of autumn

As the Summer Triangle sets in the west on autumn evenings, the Square of Pegasus takes centre stage. The Square lies high in the south at 10 p.m. in mid-October, 8 p.m. in mid-November, and 6 p.m. in mid-December. The four stars that mark the corners of the Square are of only moderate brightness. They enclose a large area of sky that is almost entirely devoid of naked-eye stars.

The Square of Pegasus is like a keystone in the autumn sky, from which many surrounding stars and constellations can be identified. To the top right of the Square lie Deneb and the rest of the Summer Triangle. Between the Square and the pole star lies the W-shaped constellation of Cassiopeia. As the diagram shows, a line extended upwards from the left-hand side of the Square passes through the end of the W shape and on to Polaris. Alternatively, you can use this line in reverse, running it from Polaris through Cassiopeia, to find the Great Square. A line extended downwards from the right-hand side of the Square directs you to Fomalhaut, a bright star in the southern constellation of Piscis Austrinus, but often difficult to find from mid-northern latitudes because it is so close to the horizon.

Now look at Cassiopeia, riding high above you. A line drawn across the top of the W points to Capella, one of the prominent stars of the winter sky.



Signposts of winter

The sky in winter is more richly stocked with bright stars than in any other season of the year. The jewel in winter's crown is the brightest star in the entire sky, Sirius, which glitters due south at midnight at the beginning of January, at 10 p.m. at the beginning of February and at 8 p.m. at the beginning of March. Sirius lies at the southern apex of the Winter Triangle of brilliant stars, which is completed by Procyon to its upper left and Betelgeuse to its upper right.

Betelgeuse marks the top left of the constellation of Orion, a rectangular-shaped figure that is the easiest of the winter constellations to recognize. At the bottom right of the Orion rectangle is Rigel, a star slightly brighter than Betelgeuse. Two fainter stars complete the rectangle. Across the centre of Orion runs a distinctive line of three stars comprising Orion's belt.

To the top right of Orion is another prominent star, Aldebaran, which represents the glinting eye of Taurus, the Bull. Aldebaran is of similar brightness to Betelgeuse, and both stars have a noticeably orange tinge. Continue the line from Orion through Aldebaran and you will come to a hazy-looking knot of stars called the Pleiades, a star cluster that shows up well in binoculars.

Above Orion, almost directly between it and the north celestial pole, lies the bright star Capella. To the top left of Orion, above the Winter Triangle, lies a famous pair of stars called Castor and Pollux, the celestial twins in the constellation Gemini. Off to the left of Castor, Pollux and Procyon lies Leo, the Lion, which introduces us once again to the skies of spring.

